MR. PIXEL'S CARTOON KIT

BY MASTER SOFTWARE, INC.

CARTOONS ILLUSTRATED BY
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CARTOONS CONCEIVED IN PART BY
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BOOK DESIGNED BY JOEL BRONZ
DESIGN, NEW YORK, NEW YORK.

□■◆■ **PIXELWERKS** ™

Quickstart—Getting Up and Running

How to Load the Program

See the reference card for specific loading instructions.

■ Note: Make sure you initialize a blank disk *before* you're ready to save any cartoons or players, since you can't save a cartoon or player and initialize a disk at the same time.

Choosing a Command

To do anything with Mr. Pixel's Cartoon Kit, you need to give the computer commands. Follow these steps to give a command:

1. Move the cursor -¦- along the menu. To move the cursor, use either a joystick or the ↑↓←→ arrow keys on the keyboard.
2. When the cursor is on top of a command, the command will blink and you will hear a beep.
3. Press the button on your joystick, or press **Return** if you are using arrow keys, to choose this command. This prompts a "command accepted" sound.
4. The command you choose remains in effect until you choose another command.

The menu has many commands. They do not all fit on the screen at once. To see other commands you must move, or scroll, the menu. Follow these steps:

1. Move the cursor to the scrolling arrows ⇄ on either side of the menu.
2. Choose the ➡ arrow and hold the joystick button or the **Return** key down. The menu scrolls from right to left.
3. Release the button or **Return** to stop scrolling.
4. Use the ⬅ arrow to make the menu scroll from left to right.

Playing a Cartoon

As soon as you load the disk, one of three cartoons programmed on the disk automatically plays. To watch a different cartoon play, you need to load a different cartoon and background. Read on.

The Cartoon Command

USE THE CARTOON COMMAND TO PUT A NEW CARTOON ON THE SCREEN. Follow these steps to choose the **Cartoon** command:

First, choose the ➡ scrolling arrow and hold the button down until you see the word **Cartoon** and its icon, or picture.

Move the cursor to the **Cartoon** command and press the button. A new menu with four commands pops up on the screen:

Choose the **Get** command. This command goes and gets a cartoon from the disk. These words appear on the screen:

CHOOSE ONE OF THESE CARTOONS.

A list will appear.

Move the cursor to any cartoon except "Tutorial" and press the button. In a few seconds, the cartoon players appear.

■ Notes: "Tutorial" is not an actual cartoon. Later you will use it to get started making your own cartoon. But you don't want to choose it yet.

The other commands, **Clear**, **Save**, and **Done** (the hand), in the **Cartoon** menu are discussed later in this manual.

Now you need the background that goes with this cartoon.

The Background Command

USE THE BACKGROUND COMMAND TO CHOOSE A BACKGROUND FOR A CARTOON. Each ready-made cartoon in the Cartoon Kit has a picture, or background, that goes with it. To get a background, follow these steps:

Move the cursor to the **Background** command and press the button. Another menu appears on the screen:

Quick Reference

MAIN MENU

A. scrolls the main menu left or right across the screen so you can see all the commands

B. rewinds your cartoon back to its beginning

C.
1. plays your cartoon forward
2. plays your cartoon backward
3. plays your cartoon forward *one step at a time*
4. plays your cartoon backward *one step at a time*

D. programs the directions your players move in

E. keeps your player in one place while it moves

F. shows the three players that are in your cartoon at any given moment

G. the arrow tells which player is being programmed now

H. lets you select, make, clear, get, and save players for your cartoons

I. reverses the direction a player is facing

J. controls the speed at which your players move in your cartoons

K. player is invisible as long as this sign replaces it

L. gives you a special menu so you can get, save, or clear a cartoon

M. gives you a special menu so you can clear a background or get a background from disk

PLAYERS MENU

A. players screen

B. sends you to the make screen that lets you draw a new player or change an existing one

C. erases a player from computer memory

D. lets you get a player from disk

E. lets you save a player on a disk

F. sends you back to the main menu

MAKE SCREEN

A. large "blow-up" box that you draw or change players in

B. box in upper right corner shows the player's movements

C. four frames of a player's animation; each box contains one of the player's four movements

D. arrow points to whichever frame is being drawn

E. lets you choose which color to draw with

F. erases the player you are drawing

G. lets you draw in one frame (just one of player's movements) or all four at once

H. puts a drawing from one frame into another frame

I. lets you go back to the PLAYERS screen

CARTOON MENU

A. erases a cartoon's program from computer memory

B. saves a cartoon on a disk

C. lets you get a cartoon from disk

D. lets you go from the special CARTOON menu back to the cartoon
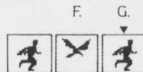
BACKGROUND MENU

A. erases a background from computer memory

B. lets you get a new background from disk

C. lets you go back to the cartoon without getting or clearing a background

New backgrounds can be created with Mr. Pixel's Programming Paint Set disk.

Main Menu	A.	B.	C.	D.	E.	F.	G.	H.	I.	J.	K.	L.	M.
		REW	PLAY	(W)				PLAYERS	FLIP	SPEED	HIDE	CARTOON	BACK-GROUND

Players Menu	B.	C.	D.	E.	F.
	MAKE	CLEAR	GET	SAVE	DONE

Make Screen	C.	D.	E.	F.
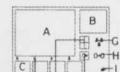
Cartoon Menu	A.	B.	C.	D.
	CLEAR	SAVE	GET	

Background Menu	A.	B.	C.
	CLEAR	GET	

Choose **Get** and see this instruction:

CHOOSE ONE OF THESE BACKGROUNDS.

A list will appear.

Choose any of these backgrounds. It's best to choose the same background as the cartoon you chose. In a few seconds, the new background appears on the screen.

If you decide you don't want the background on the screen, choose **Background** again, and from the special menu, choose **Clear**.

■ Notes: All the ready-made backgrounds in Mr. Pixel's Cartoon Kit were made with Mr. Pixel's Programming Paint Set. You can also make and save your own backgrounds with the Programming Paint Set to use in the Cartoon Kit.

The Play Commands
USE THE PLAY COMMANDS TO WATCH A CARTOON PLAY. Once **Cartoon** and **Background** have been chosen, you can play the cartoon.

Forward Play ▶
USE THE FORWARD PLAY COMMAND TO PLAY THE CARTOON FORWARD. Follow these steps:

Move the cursor to the **Forward Play** command.
Press the button and the cartoon begins to play.
Watch it play to the end.

Rewind ◀◀
USE THE REWIND COMMAND TO PUT A CARTOON BACK TO ITS BEGINNING. To Rewind the cartoon you just played:

Move the cursor to the **Rewind** command and press the button. The players return to their starting positions.

Reverse Play ◀
USE THE REVERSE COMMAND TO PLAY A CARTOON BACKWARD. To play this cartoon in Reverse, follow these steps:

Move the cursor to the **Reverse Play** command and press the button. The cartoon begins playing backward. It will play back to the beginning unless you stop it by pressing the button again.

■ Note: You can choose the **Reverse Play** command at any point in the cartoon and watch it play backward. When you stop the cartoon and then choose the **Forward** or **Reverse Play** command, the cartoon continues to play from where it was stopped.

Single-Step Forward ▶①
USE THE SINGLE-STEP FORWARD COMMAND TO PLAY THE CARTOON FORWARD ONE FRAME AT A TIME. To play this

cartoon using Single-Step Forward, follow these steps:

First, choose **Forward Play**.

After three or four seconds, press the button to stop it.

Now move the cursor to the **Single-Step Forward** command and press the button. The command is the number 1 in a circle next to the **Forward** arrow. The cartoon plays forward one step, or one "frame."

Press the button again and it will move forward another frame.

Each time you press the button, the cartoon will play forward one frame at a time.

Single-Step Reverse ◀①
USE THE SINGLE-STEP REVERSE COMMAND TO PLAY THE CARTOON IN REVERSE ONE STEP AT A TIME. To play the cartoon using Single-Step Reverse:

Move the cursor to the **Single-Step Reverse** command and press the button. The command is the number 1 in a circle next to the **Reverse** arrow. The cartoon plays backward a single frame. Each time you press the button, the cartoon moves one frame in reverse.

Choose **Rewind** to put the cartoon back to its beginning.

The **Play** commands are important because they make it possible for you to put the cartoon exactly where you want it, which is very helpful in making cartoons.

Clearing a Cartoon

USE THE CLEAR COMMAND TO ERASE, OR CLEAR, THE MOVEMENTS OF THE PLAYERS IN A CARTOON. Note that even if you Clear one of the cartoons that came on the disk, you can play it again later because it is saved on the disk. To Clear the cartoon you just played, follow these steps:

Scroll the menu to the Cartoon command.

Choose Cartoon; this menu pops up:

Choose Clear. The movements for these cartoon players are erased. To check this, you can try playing the cartoon; nothing will happen.

You can make your own cartoon using the players that were in this or any cartoon.

■ Notes: Choosing the Clear instruction in the Cartoon command only erases the programs of the players, not the players themselves.

Remember, this cartoon is saved on the disk. So even though you Cleared it from the computer's memory, you can still load it from the Mr. Pixel's Cartoon Kit disk.

Making/Changing a Cartoon

To make your own cartoon, start with the special "Tutorial" cartoon. "Tutorial" is special because it doesn't have players' movements already programmed; so you don't have to Clear the cartoon to begin. To get started:

Choose Cartoon and Get.

From the list of cartoons, choose "Tutorial."

Then choose Background, Get, and the "Heroes" background.

Programming the Players

YOU USE MOST OF THE COMMANDS ON THE MENU TO PROGRAM PLAYERS TO MAKE A CARTOON. As you make the following cartoon, each command is explained as it is used to program the players.

Before you begin programming this cartoon, look at the three players in the menu at the bottom of the screen. The first box should have a pointer above it. This pointer tells you which player currently is being programmed.
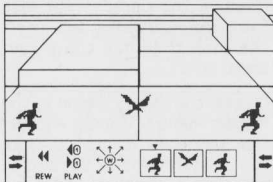

If the pointer is *not* above the box on the left, put the cursor in that box and press the button. In this example, the player in the first box is the player on the left side of the screen. Start by programming him.

Arrows
USE THE EIGHT ARROW COMMANDS TO MOVE A PLAYER ON THE SCREEN. To move the first player, follow these steps:

Move the cursor -¦- to the → arrow. Hold the button down and watch the hero move to the right. When he almost reaches the right side of the screen, release the button to stop him.
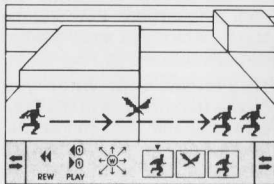
Choose Rewind and the hero returns to his starting position.

Now choose Forward Play to see what you have programmed. The player runs across to the right side of the screen. The bird and the other hero are frozen because you have not programmed them to move yet.

Choose Rewind again to put the player back to the beginning.

- **Note:** If you hold the button down when you choose an arrow command, the player keeps moving until you release the button.

If you want to move the player one step at a time, press and release the button once for every step you want the player to take.

To program the other hero, choose the third box (the box on the right) in the menu, where you see his picture. You can always program players in any order you like, not necessarily in the order in which they appear in the menu. To choose the hero in the third box, follow these steps:

Move the cursor into the third box and press the button. The pointer moves over to the third box, telling you that now this is the player being programmed.

Flip

USE THE FLIP COMMAND TO TURN A PLAYER AROUND SO THAT IT IS FACING IN THE OPPOSITE DIRECTION. To Flip the second hero:

Scroll the menu to find the Flip command.

Move the cursor to the Flip command and press the button. The hero on the right side of the screen Flips to face the left so that he is looking at the first hero.
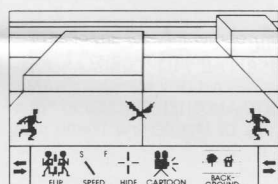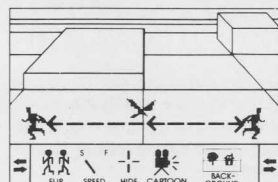
Now, to move the second hero to the left side of the screen:

Scroll the menu.

Choose the ← arrow, hold the button down, and watch the hero move to the left.

When he nearly reaches the edge of the screen, release the button to stop him.

WHEN YOU PROGRAM A PLAYER, ANY PROGRAMS THAT YOU HAVE ALREADY MADE FOR OTHER PLAYERS WILL PLAY AT THE SAME TIME. This makes it possible for you to see what the other players are doing in the cartoon so that, while you are programming, you can see where and at what point in time you want your players to be.

Now choose Rewind and then Forward Play to see what you have programmed so far. The heroes run to opposite sides of the screen simultaneously. The bird does not move.

Choose **Rewind** again to return the cartoon to its beginning.

Now to begin the third program, choose the bird:

Move the cursor into the middle box and press the button. The pointer moves over to the second box.

The bird needs to be invisible until it is in the upper right corner of the screen. To make the bird invisible for the first part of the program, use the Hide command.

Hide

USE THE HIDE COMMAND TO MAKE A PLAYER INVISIBLE FOR PART OR ALL OF ITS PROGRAM. This command makes it possible for you to Hide a player and move it to another spot on the screen where you want it to be shown. You can Hide a player at any point in the cartoon. To Hide the bird, follow these steps:

Scroll the menu to find the Hide command.

Choose the Hide command. The bird disappears and this sign -¦- appears in its place, so you can see where the bird is moving even though you can't see the bird.

Look at the Hide command in the menu. The word Hide is gone, and the word Show has taken its place. This is now the Show command. You will use it later when you are ready for the player, in this case the bird, to Show. Before you program the bird, adjust the speed of the bird's movement.

Speed

USE THE SPEED COMMAND TO CHANGE THE SPEED OF A PLAYER'S MOVEMENTS. The players in the Cartoon Kit move at a slow speed. You can make them move faster by choosing F for Fast in the Speed command. Choosing S for Slow makes the player return to its normal slow speed. To make the bird move Fast, do this:

Move the cursor to the F in the Speed command and press the button.

The bird will continue to move fast until you choose the S command.

- **Note:** To change the speed of a player, you must always choose the Speed command first, before choosing the direction (Arrows) you want the player to go in.

To move the invisible bird to the upper right corner of the screen, do this:

Choose the ↗ arrow and hold the button down. When the bird -¦- reaches the upper right corner of the screen, release the button to stop it.

- **Note:** If, when you are programming, you move a player too far in any direction, choose the Single-Step Forward or the Single-Step Reverse command to position the player exactly where you want it.

Show

USE THE SHOW COMMAND WHEN YOU ARE READY TO MAKE A PLAYER APPEAR AFTER YOU HAVE HIDDEN IT. To Show the bird:

Move the cursor to the Show command and press the button. The bird appears where the -¦- is positioned.

Turn the bird around by choosing the Flip command.

Now the bird is facing left. To make the bird fly across the screen to the left:

Choose the ← arrow until the bird nearly reaches the edge of the screen, then stop it.

At this point, choose Hide to hide the bird again.

Choose Slow.

Choose Rewind to put the cartoon back to the beginning.

If you want to see how Hide and Show affected the bird, choose Forward Play. When it has played to the end, choose Rewind again. You have just programmed a third player. You can see that three players, or three programs, run at the same time.

Now let's change the cartoon a little bit. Begin by continuing the first program, the one that controls the hero on the left side of the screen. Instead of letting the hero run all the way to the right side of the screen, stop him when he reaches the center. Then make him take off and fly away. To stop the first hero at the center, follow these steps:

First, choose the hero in the first box in the menu. The pointer moves over to the first box.

Next, choose Forward Play. Let the cartoon play until the first hero reaches mid screen, then stop the cartoon by pressing the button.

Look at the first hero. Right now, he is running. To make him appear to be taking off in flight, use the Players command.

Players

USE THE PLAYERS COMMAND WHENEVER YOU WANT TO REPLACE A PLAYER ON THE SCREEN WITH A DIFFERENT PLAYER OR WITH THE SAME PLAYER DOING A DIFFERENT ACTION. You also use the Players command to make a new player.

To replace the player in the first box, follow these steps:

Move the cursor to the Players command and press the button.
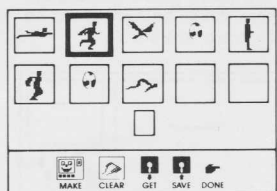
A new menu pops up with players to choose from. Look at the player inside the box with the thick outline. The outlined box tells you that this is the player you are currently programming in the cartoon. Move the cursor into the different boxes so that

you can see which action each player does. Notice that some of the boxes have the same player doing different actions. To choose the hero that is "taking off":

Move the cursor into the box that has the hero taking off. Press the button, and the thick outline appears around this player.
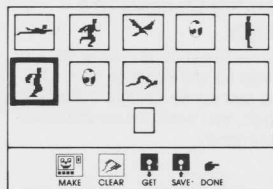
The player you select from the Players menu replaces the player in the main menu that is currently being programmed; that is, the player you just selected now appears in the box with the pointer over it in the main menu. The player now being programmed is the player taking off.

■ Note: Any player can be replaced, not only by any player on the Players menu, but by any of the players that come stored on the Mr. Pixel's Cartoon Kit disk, or by any player that you have made and saved on another disk. This means that any player can appear in any cartoon. By using the Get command from the Players screen, you can see a list of all the players on the program disk or on your storage disk. See Getting a Player in the Making/ Changing a Player section of this manual.

Now to return to the main menu, use the Done command.

Done
USE THE DONE COMMAND TO RETURN TO THE MAIN MENU FROM THE PLAYERS MENU.

To take off, this new player uses four movements. To make those movements occur while the player stays in one place, you need to use the Wait command.

Wait
USE THE WAIT COMMAND TO KEEP A PLAYER IN ONE SPOT ON THE SCREEN AS THE PLAYER MAKES ITS MOVEMENTS. The player repeats the movements of its animation as it Waits in place. To make the hero bend down and jump up in place:

Move the cursor to the Wait command. Press the button four times and watch the hero bend down, come up, and jump in the air one time.

The other hero continues to run to the left, and the bird starts to fly to the left. If you press the button too many times, choose the Single-Step Reverse command and back the hero up to where you want him.

Each time you choose Wait, you see one step in the animation process for that player. Animation is discussed in the Making/ Changing a Player section of this manual.

You have now changed the first player's program that you made before. By stopping the hero at the center of the screen and having him make the movements for takeoff, you erased the last part of the previous program. Therefore, the next time you play the cartoon from the beginning, the first hero will run as far as the center, stop, and make the movements for takeoff.

■ Note: Whenever you stop a cartoon in the middle and change the program of a player, any further programming of that player begins at the point that you stopped the cartoon. The new program takes the place of, or erases, whatever came after this point in the old program.

Now that the hero is programmed to make takeoff movements, you need to make him fly away. To do that, go to the Players menu to choose the hero that is flying. Follow these steps to choose the flying hero:
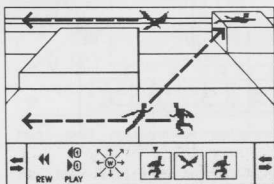
Choose Players to see the Players menu.

Choose the flying hero by moving the cursor into his box and pressing the button.

Now choose Done. The first box in the main menu now has the flying hero.

To make the hero fly up to the box on the right:

Choose the ↗ arrow and move the hero to the top right corner of the screen. When he reaches that point, release the button.

To make the hero land on the box and run a few steps:

Choose Players.

Choose the hero that is running and choose Done. The running hero is now being programmed.

Choose the → arrow and press the button six or seven times to make the hero run across the box. Or, you can hold the button down; if he runs off the screen, choose Single-Step Reverse to put him back on the box.

Now choose Flip.

You have just changed a player four times within the same program. You made him run, take off, fly, and turn to run in the other direction. This is just one example of how you can change actions of the players as many times as you want to, all in one program. If you want to look at what you have programmed so far, choose Rewind and then Forward Play. Let the cartoon play until it comes to a stop.

Continue programming your cartoon by making the bird drop an egg. To do this, follow these steps:

First, choose the bird in the main menu; the pointer appears above the second box.

Choose Reverse Play to back the cartoon up to the point just before the bird disappears. You may have to use Single-Step Forward and Single-Step Reverse to find this point in the cartoon.

When you reach this point, stop the cartoon by pressing the button.

To change the bird into an egg, follow these steps:

Choose Players, and then choose the egg that doesn't hatch.

Choose Done. Now the egg is being programmed.

To make the egg drop and bounce off the ground:

Choose the ↓ arrow and move the egg down towards the ground. When it hits the ground, stop it.

Now choose the ↑ arrow three times to move the egg up in the air.

Choose the ↓ arrow three times.

Repeat this pattern with the ↑ arrow and ↓ arrow two more times to make the egg look as if it is bouncing.

You have just made your first cartoon. Choose Rewind and Forward Play to see what you have made. You can change this cartoon in many ways—by changing the story (programs) or the players in whatever way you wish. You can also add more to this cartoon by programming the players from the point where the cartoon ends.

■ Note: It's possible to run out of room, or memory, for any or all of the three programs in your cartoon. If that happens, you'll see this message on the screen: THIS PLAYER IS OUT OF MEMORY.

At this point, you can continue by giving more commands to another player that has room, by playing the cartoon you've created so far without adding anything else to it, or by saving the cartoon as it is. Of course, you can also Clear the cartoon and start over.

You might want to save this new cartoon so you can play it any time. To do this, you'll need to use the Save command.

Saving A Cartoon

USE THE SAVE COMMAND TO SAVE YOUR NEWLY MADE CARTOON ON A DISK. To Save a cartoon, you need to use a disk that has been initialized. Initializing a disk formats it to work with your computer. Use the initialized disk you made before you created your cartoon. When you are ready to Save your cartoon, in this case, the cartoon you just made, follow these steps:

Remove Mr. Pixel's Cartoon Kit disk from the disk drive.

Put an initialized disk into the disk drive.

Choose Cartoon.

Now choose the Save command. These words appear on the screen:

Pick any name you want for the cartoon you are Saving, type it in, then press Return. The cartoon is now Saved on the initialized disk under that name.

■ Notes: If you pick a name that you have used before, the new cartoon will take the place of the old cartoon that had the same name.

When your storage disk (the initialized disk you use to store your work) is full, the computer will give you the message that there is no more room on the disk. Then you can erase the cartoons you've already saved by reinitializing the disk, or you can initialize a new disk to use for saving more cartoons.

Saving a cartoon does not save the background along with it. You can always Get any background that is saved on the program disk to use with any cartoon. You can also save a drawing from your Mr. Pixel's Programming Paint Set disk to use as a background in the Cartoon Kit disk.

Now you can play or change your new cartoon any time you want. To put this or any cartoon on the screen, use the Get command.

Getting
A Cartoon

USE THE GET COMMAND TO PUT A READY-MADE CARTOON OR ONE YOU HAVE SAVED ON A DISK ON THE SCREEN. To Get a cartoon, for example, the one you just Saved, follow these steps:

(If you want to Get the cartoon you just Saved, or any cartoon Saved on another disk, make sure that your storage disk is in the disk drive. If you want to Get a cartoon that came on Mr. Pixel's Cartoon Kit disk, then make sure the Cartoon Kit disk is in the disk drive.)

Choose Cartoon.

Move the cursor to the Get command and press the button. A list of the cartoons that are Saved on the disk appears on the screen:

CHOOSE ONE OF THESE CARTOONS.

(Names of Your Cartoons)

Move the cursor to the name of the cartoon you want. When it blinks, press the button. After a short wait, that cartoon appears on the screen.

■ Notes: If you change your mind and don't want to Get any cartoon, move the cursor to the hand in the lower right corner and press the button.

If you have turned off your computer and then want to Get a cartoon (or player) from any disk that you have Saved it on, first you must load the Cartoon Kit disk, then insert the storage disk and follow the above instructions.

Getting a cartoon does not Get a background. This must be done separately. To Get a background, first choose the Background command, and then choose the

background you want. If your background is on a disk other than Mr. Pixel's Cartoon Kit disk, insert your storage disk into the drive.

Making/Changing
a Player

Making and changing players with your Mr. Pixel's Cartoon Kit disk adds a whole new dimension to your cartoon creations. To make a *completely* original cartoon, you need to know how to make your own players. To make a new player or to change an existing one, you need to use the Make command which is available from the Players screen.

The Make
Command

USE THE MAKE COMMAND TO CHANGE AN EXISTING PLAYER OR TO CREATE A NEW ONE. This section gives you an overview of the special options available when you choose the Make command. To see how it works, follow these steps:
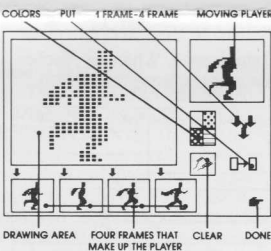
Make sure your Cartoon Kit disk is in the disk drive.

If the computer has been turned off, load the disk, and then choose the "Tutorial" cartoon.

Choose Players.

Choose the running hero from the Players menu.

Move the cursor to the Make command and press the button. A new screen appears that looks like this:

COLORS   PUT   1 FRAME-4 FRAME   MOVING PLAYER

DRAWING AREA   FOUR FRAMES THAT   CLEAR   DONE
MAKE UP THE PLAYER

Look at the large area that has the blow up of the hero player. The little boxes of color that make up the body of the hero, or any player, are called "pixels." A pixel is a computer term that means a dot on the screen. In the blow-up area, the computer is magnifying the body of the hero so that you can see the pixels and see what you are drawing. Each pixel can be a different color; every player is made up of many pixels. The blow-up area is always where you draw and where you see the pixels of what you draw. If the arrows point to all four frames, the blow up shows just what is in the first frame.

In the upper right part of the screen is the moving player. While you are drawing, everything you draw appears in this area so that you can see how your player moves as you make the drawing.

The four boxes at the bottom of the screen are called "frames." These four frames make up the moving parts of the player in the upper right corner.

Under the moving player are four commands that you can use in making players: the Color command, the 1 Frame-4 Frame command, the Clear command, and the Put command.

COLOR COMMAND   ⬚   ⬇⬇ 1 FRAME-4 FRAME
COMMAND

CLEAR COMMAND   ✎   ⬚→⬚   PUT COMMAND
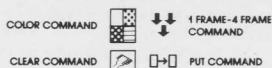
Each of these commands is explained as you use it to do the following examples.

Making Changes to a
Player

To practice changing a player, add a belt to the running hero that you just chose. To give the player a belt, you need to use the Color command.
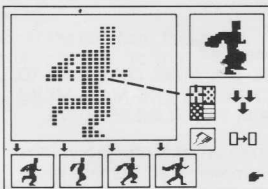
Color

USE THE COLOR COMMAND TO CHOOSE THE COLOR YOU WANT TO DRAW WITH. There are four color choices in the menu. To make the hero a belt, follow these steps:

Move the cursor to one of the boxes in the Color command. Move to any color *other than* the color of the hero's body. Press the button. Pressing the button chooses this as your drawing color.

Now move the cursor into the drawing box. Move the cursor to the hero's waist on the left side. Press the button and a pixel of the color you chose is drawn wherever the cursor is. The color you chose in the Color command replaces whatever color was there before. Notice that the new pixel appears in the four frames at the bottom of the screen and in the area with the moving hero. Notice how small this pixel is in the bottom frames; this is the normal size of a pixel.

■ Note: If you make a mistake and draw too far, choose the Color command in the outlined box. Drawing with this color on top of the color pixels makes the pixels look as if they were erased.

Now choose the hand at the bottom of the screen. This means that you are Done making the player and wish to go back to the Players menu. Look at the running hero. You should see the hero wearing a belt.

Making an Animated
Player

Make sure the outline is around the running hero, then choose the Make command. Look at the four frames. Notice that in each frame the hero is a little different from the one before. In each frame, his arms and legs are in a different position.

If these four frames were pictures on four consecutive pages in a book, the hero would appear to be running as you flipped quickly through the pages. That is what the computer does. It flips through all four frames, one after another, in one second. It does this again and again—flipping through the four frames at the same speed each time. Because the hero in each frame is in a different position and because the computer is showing the frames so fast, it makes the player look as if he's running. Cartoons that you see on TV are made in a similar way.

Look at the running hero in the upper right area of the screen. Within this one moving picture, you can see all four frames of the hero, one after another, repeating at the speed of four frames a second. To make a player look as if it is alive or moving is called "animation." This running hero is an animated player.
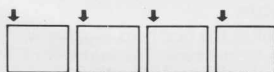
To make a new animated player, follow these steps:

First, choose the hand to return to the Players menu.
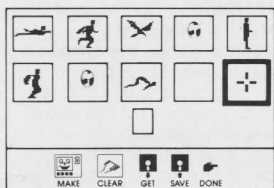
Then, choose the empty box in the Players menu. If there is no empty box, choose a player you want to replace, then choose Clear. If the player you Cleared is stored on disk, you can Get that player back any time.

Now choose Make. You have empty frames to draw a new player in.

Look at the arrows that are pointing to the four frames. The arrows tell you which frames you are drawing. This means that whatever you draw now will go into all four frames, just as the belt you drew appeared in all four frames. Start by making a box.

Choose a color and move the cursor into the drawing area. Move the cursor over to the left, just above the middle of the box. Press the button once and a pixel appears.

To make the top line of the box, press the button again and move the cursor to the right until seven more pixels are drawn. (There should be eight pixels on each side of the box.)
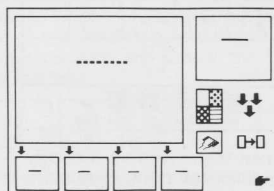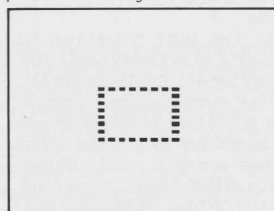

Press the button again and move the cursor down. Draw seven more pixels, one below the other to make the second side of the box.
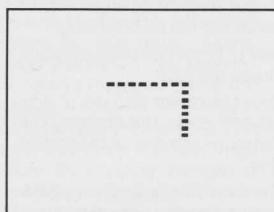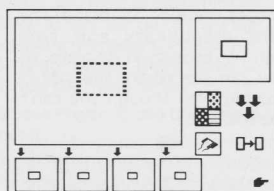

Now press the button and draw seven more pixels to the left to make a third line of pixels.

To make the fourth side of the box, move the cursor above the last pixel you drew and draw six pixels. You have just made a box.


Notice that your box appears in all four frames.

Next, draw something in just one of the frames. To do this you need to use the 1 Frame–4 Frame command.

1 Frame–4 Frame
USE THE 1 FRAME–4 FRAME COMMAND TO CHANGE OR DRAW SOMETHING IN ONE FRAME ONLY. This command allows you to switch back and forth between all four frames and just one frame. This means that you can draw something in all four frames at once or in only one frame at a time. Right now you are drawing in all four frames. To switch to one frame:

Choose the 1 Frame–4 Frame command. The four arrows disappear and one arrow appears above the first frame, like this:
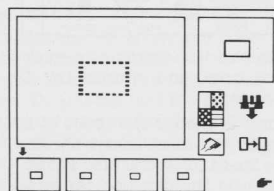
Now you can change just one part of the animation; that is, change just one of the four frames, or boxes. To draw in the second frame rather than in the first, do this:

Move the cursor inside the second frame and press the button. The arrow appears above the second frame, and the drawing area becomes that frame.
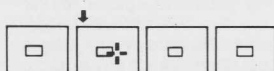

All drawing that you do now will appear in the second frame only.

This also means that the drawing area is now a blow up of the second frame instead of the first frame.

■ Note: When you want to choose another frame to draw in, simply move the cursor into one of the frames at the bottom of the screen and press the button.

Now choose a different color and draw another box. But this time, draw the second box around the outside of the first box. Look at the second frame now.
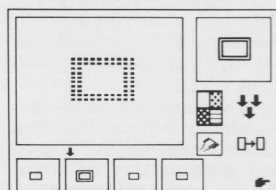
Look at the box in the upper right corner of the screen. The larger box is flashing, the smaller box is not. This is because the smaller box is in all four frames. Being in all four frames means that it is always on and you can always see it. The larger box is only in one frame, which means that you do not see it in the other three frames. In one frame, you see it; in three frames, you do not see it. This happens so quickly that it appears to be flashing.

Now to continue the animation, move a copy of the drawing that you just made into another frame. To do this, use the Put command.

Put
USE THE PUT COMMAND TO MOVE A COPY OF ONE FRAME INTO ANOTHER FRAME. To Put a copy of the second frame into the third frame, follow these steps:

First, make sure that the arrow is pointing to the frame you want to move; in this example, that is the second frame.

Then, move the cursor to the Put command and press the button.

Now move the cursor into the third frame and press the button. The larger box appears in the third frame. Look at the animated box. The larger box is blinking less because it now appears in two out of four frames.

Choose Put again and move the cursor into the fourth frame.

Press the button and watch the larger box appear in the fourth frame.

Now look at the animated box. Because the larger box now appears in three out of four frames, it looks as if it is flashing off instead of on.

Now go back to the third frame and add another box. First you need to choose that frame. To choose the third frame:

Move the cursor into the third frame and press the button. The arrow moves over to the third frame; whatever you draw now goes into that frame.

To add another box:

Choose a new Color command.

Draw a box of this new color outside the second box.
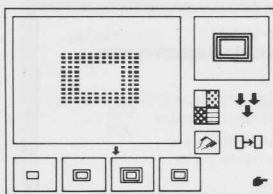
Now there are three boxes, one inside the other, in the third frame. Look at the animated box. You have just made your first animated player—a flashing box!

Look at this new player on the Players screen by choosing Done. Move the cursor into the box so you can see its animation on the Players screen. Choose this box by pressing the button, making sure that the thick outline is around it. Now choose Make to go back to the Make screen and see how to erase a player you've drawn.

Clearing a Player on the Make Screen
USE THE CLEAR COMMAND ON THE MAKE SCREEN TO ERASE THE PLAYER. You can Clear one frame at a time or all the frames at once. To Clear all the frames, follow these steps:

First, choose the 1 Frame–4 Frame command to make the arrows point to all four frames again, if they are not already doing so.

Now move the cursor to the Clear command and press the button. All the drawings disappear.

If you had wanted to Clear just one frame, you would have used the 1 Frame–4 Frame command to choose just the one frame you wanted Cleared.

■ Note: It is important to know that when you Make a new player it will not appear in that same cast of players the next time you choose that cartoon or when you reload the program *unless you Save it on a disk.*

Now try creating a new player. Read on to learn how to Save the player you make on your own.

The Small Player
Before discussing the Save command, take a look at the small box in the Players menu. This is a box especially for making small players. These small players can be used in the Cartoon Kit, and can also be used in another Mr. Pixel program, Mr. Pixel's Game Maker, which has small players in it.

This means that when you choose the small box in the Players menu and then choose the Make command, the Make screen appears with a smaller drawing area. You make the small player in the same way that you make the other players, and you use it in the cartoons just like any other player. The only difference is that it is smaller in size. You also Save a small player just as you Save a player of regular size.

Saving a Player
USE THE SAVE COMMAND TO SAVE YOUR NEWLY MADE

PLAYER ON A DISK. You Save a player in the same way you Save a cartoon. You can Save players on the same initialized disk you used for Saving cartoons. To Save a player, follow these steps:

Remove Mr. Pixel's Cartoon Kit disk from the disk drive and insert an initialized disk.

Choose Players if you have left the Players screen. Make sure the outline is around the box of the player you want to Save.

■ Note: Whenever you choose the Players menu, the thick outline will always appear around the player last programmed (the one with the pointer above it in the main menu). Be sure to choose the player you want to Save before choosing the Save command.

Now choose the Save command. These words appear on the screen:

TYPE IN THE NAME OF THE PLAYER TO SAVE.
(OR PRESS RETURN TO GO BACK TO YOUR CARTOON.)

Pick a name for the player you are Saving, type it in, then press Return. The player is now Saved on the disk under that name.

■ Note: If there is no more room to save players on the initialized disk you are using, you will see a message on the screen telling you there is no more room. Then you can either erase everything you have saved on the disk so far by reinitializing it, or you can use another initialized disk.

Repeat the same steps for every player that you want to Save.

Clearing a Player
USE THE CLEAR COMMAND TO ERASE ANY PLAYER ON THE PLAYERS SCREEN FROM THE COMPUTER'S MEMORY. If you have Saved a player on an initialized disk, you can Clear it from the screen, yet get it back whenever you want by Getting it from the disk. To Clear a player:

Choose the player you want to Clear.

Make sure that the outline is around the player you want to Clear.

Now move the cursor to the Clear command and press the button.

Getting a Player
USE THE GET COMMAND TO GET A READY-MADE PLAYER FROM THE CARTOON KIT DISK OR TO GET A PLAYER THAT YOU MADE AND SAVED ON ANOTHER DISK. To Get a player that you Saved on another disk, follow these steps:

If the computer has been turned off, load Mr. Pixel's Cartoon Kit and then choose Players.

Remove the Cartoon Kit disk from the disk drive and insert the disk that has the player Saved on it.

Choose the empty frame in the Players menu or choose a player that you want to replace. Once you press the button, the outline appears around it.

■ Note: Once you replace a player, that player is no longer available for this cartoon unless it is a ready-made player or one you have stored on an initialized disk. Then you can Get it back by following this Get procedure.

Move the cursor to the Get command and press the button. A list of the players you have Saved appears on the screen:

CHOOSE ONE OF THESE PLAYERS.
(Names of Your Players)

Move the cursor to the name of the player you want. When it blinks, press the button. That player then appears in the box which had the outline in the Players menu. Afterwards, the thick outline returns to where it was before.

If you change your mind and don't want to Get a player, move the cursor to the hand in the lower right corner and press the button. The Players menu reappears.

■ Notes: If you wish to Get one of the ready-made players that is presaved on Mr. Pixel's Cartoon Kit disk, put the Cartoon Kit disk in the disk drive and follow the instructions above.